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Sequence Listing was accepted.

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217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: Thu Sep 13 18:36:16 EDT 2007

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Application No: 10583926 Version No: 1.0

**Input Set:****Output Set:**

**Started:** 2007-09-04 13:56:48.393  
**Finished:** 2007-09-04 13:56:50.813  
**Elapsed:** 0 hr(s) 0 min(s) 2 sec(s) 420 ms  
**Total Warnings:** 149  
**Total Errors:** 0  
**No. of SeqIDs Defined:** 152  
**Actual SeqID Count:** 152

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W 402	Undefined organism found in <213> in SEQ ID (6)
W 402	Undefined organism found in <213> in SEQ ID (7)
W 402	Undefined organism found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
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W 213	Artificial or Unknown found in <213> in SEQ ID (20)
W 213	Artificial or Unknown found in <213> in SEQ ID (21)
W 213	Artificial or Unknown found in <213> in SEQ ID (22)
W 213	Artificial or Unknown found in <213> in SEQ ID (23)

**Input Set:**

**Output Set:**

**Started:** 2007-09-04 13:56:48.393  
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**Total Warnings:** 149  
**Total Errors:** 0  
**No. of SeqIDs Defined:** 152  
**Actual SeqID Count:** 152

Error code	Error Description
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W 213	Artificial or Unknown found in <213> in SEQ ID (26)
W 213	Artificial or Unknown found in <213> in SEQ ID (27)
W 213	Artificial or Unknown found in <213> in SEQ ID (28)
W 213	Artificial or Unknown found in <213> in SEQ ID (29) This error has occurred more than 20 times, will not be displayed

# SEQUENCE LISTING

<110> TANOX, INC.  
 FUNG, Sek Chung  
 MOYLE, Matthew

<120> Treatment of Cancer Using Novel Anti-IL13 Antibodies

<130> TNX-1088

<140> 10583926

<141> 2007-09-04

<150> US60/532,130

<151> 2003-12-23

<150> PCT/US2004/43541

<151> 2004-12-23

<160> 152

<170> PatentIn version 3.4

<210> 1

<211> 114

<212> PRT

<213> Homo sapiens

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 1 5 10 15

Glu Leu Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly  
 20 25 30

Ser Met Val Trp Ser Ile Asn Leu Thr Ala Gly Met Tyr Cys Ala Ala  
 35 40 45

Leu Glu Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr  
 50 55 60

Gln Arg Met Leu Ser Gly Phe Cys Pro His Lys Val Ser Ala Gly Gln  
 65 70 75 80

Phe Ser Ser Leu His Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe  
 85 90 95

Val Lys Asp Leu Leu Leu His Leu Lys Lys Leu Phe Arg Glu Gly Arg  
 100 105 110

Phe Asn

<210> 2  
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<220>  
<221> misc\_feature  
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<223> Xaa can be any naturally occurring amino acid  
  
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Ser Pro Gly Pro Val Pro Pro Ser Thr Ala Leu Arg Xaa Leu Ile Glu  
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Glu Leu Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly  
20 25 30

Ser Met Val Trp Ser Ile Asn Leu Thr Ala Gly Met Tyr Cys Ala Ala  
35 40 45

Leu Glu Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr  
50 55 60

Gln Arg Met Leu Ser Gly Phe Cys Pro His Lys Val Ser Ala Gly Gln  
65 70 75 80

Phe Ser Ser Leu His Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe  
85 90 95

Val Lys Asp Leu Leu Leu His Leu Lys Lys Leu Phe Arg Glu Gly Arg  
100 105 110

Phe Asn

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<212> PRT  
<213> Murinae gen. sp.

<220>  
<221> CHAIN  
<222> (1)..(113)  
<223> VARIABLE REGION OF LIGHT CHAIN OF MONOCLONAL ANTIBODY 228B/C

<400> 3

Asn Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly  
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Lys Ser Val Asp Ser Tyr  
20 25 30

Gly Asn Ser Phe Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro  
35 40 45

Lys Leu Leu Ile Tyr Leu Ala Ser Asn Leu Glu Ser Gly Val Pro Ala  
50 55 60

Arg Phe Ser Gly Ser Gly Ser Arg Thr Asp Phe Thr Leu Thr Ile Asp  
65 70 75 80

Pro Val Glu Ala Asp Asp Ala Ala Ser Tyr Tyr Cys Gln Gln Asn Asn  
85 90 95

Glu Asp Pro Arg Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg  
100 105 110

Ala

<210> 4  
<211> 118  
<212> PRT  
<213> Murinae gen. sp.

<220>  
<221> CHAIN  
<222> (1)..(118)  
<223> VARIABLE REGION OF HEAVY CHAIN OF MONOCLONAL ANTIBODY 228B/C

<400> 4

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Ala Pro Ser Gln  
1 5 10 15

Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu Asn Ala Tyr

20

25

30

Ser Val Asn Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu  
 35 40 45

Gly Met Ile Trp Gly Asp Gly Lys Ile Val Tyr Asn Ser Ala Leu Lys  
 50 55 60

Ser Arg Leu Asn Ile Ser Lys Asp Ser Ser Lys Ser Gln Val Phe Leu  
 65 70 75 80

Lys Met Ser Ser Leu Gln Ser Asp Asp Thr Ala Arg Tyr Tyr Cys Ala  
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Gly Asp Gly Tyr Tyr Pro Tyr Ala Met Asp Asn Trp Gly His Gly Thr  
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Ser Val Thr Val Ser Ser  
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<210> 5

<211> 118

<212> PRT

<213> Murinae gen. sp.

<220>

<221> CHAIN

<222> (1)..(118)

<223> VARIABLE REGION OF LIGHT CHAIN OF MONOCLONAL ANTIBODY 228A-4

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 1 5 10 15

Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Asp Tyr  
 20 25 30

Asn Ile Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu  
 35 40 45

Gly Met Ile Trp Gly Asp Gly Ser Thr Ala Tyr Asn Ser Ala Leu Lys  
 50 55 60

Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln Ile Phe Leu





<210> 7  
 <211> 114  
 <212> PRT  
 <213> Murinae gen. sp.

<220>  
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 <222> (1)..(114)  
 <223> VARIABLE REGION OF LIGHT CHAIN OF MONOCLONAL ANTIBODY 227-26

<220>  
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 <222> (1)..(114)  
 <223> VARIABLE REGION OF LIGHT CHAIN OF MONOCLONAL ANTIBODY 227-26-1

<400> 7

Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly  
 1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser  
 20 25 30

Asn Gly Asn Thr Tyr Leu Gln Trp Tyr Leu Gln Lys Pro Gly Gln Ser  
 35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro  
 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile  
 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly  
 85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys  
 100 105 110

Arg Ala

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<220>  
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 <223> VARIABLE REGION OF HEAVY CHAIN OF MONOCLONAL ANTIBODY 227-26-1  
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 1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
 20 25 30

Trp Ile Asn Trp Ile Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile  
 35 40 45

Gly His Ile Ala Pro Gly Ser Gly Ser Thr Tyr Phe Asn Glu Met Phe  
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Val Asp Thr Ser Ser Ser Thr Ala Tyr  
 65 70 75 80

Ile Gln Leu Ser Ser Leu Ser Ser Glu Asp Ser Ala Val Tyr Phe Cys  
 85 90 95

Ala Arg Ser Asp Ile Phe Leu Ser Tyr Ala Met Asp Tyr Trp Gly Gln  
 100 105 110

Gly Thr Ser Val Thr Val Ser Ser  
 115 120

<210> 9  
 <211> 50  
 <212> DNA  
 <213> ARTIFICIAL

<220>  
 <223> Forward oligonucleotide primer for a mutant IL13 sequence

<400> 9  
 aagctttccc caggcctgt gcctccctct acagccctca ggaagctcat 50

<210> 10  
 <211> 30  
 <212> DNA  
 <213> ARTIFICIAL

<220>

<223> Reverse Oligo nucleotide primer of a mutant IL13 sequence

<400> 10

ctcgagggttg aaccgtccct cgcgaaaaag 30

<210> 11

<211> 22

<212> DNA

<213> ARTIFICIAL

<220>

<223> Forward degenerate oligonucleotide primer for monkey IL13

<400> 11

gyyctrggcy ycatggcgct yt 22

<210> 12

<211> 25

<212> DNA

<213> ARTIFICIAL

<220>

<223> Reverse degenerate oligonucleotide primer for monkey IL13

<400> 12

tttcagttga accgtccyty gcgaa 25

<210> 13

<211> 399

<212> DNA

<213> *Macaca fascicularis*

<400> 13

atggcgctct tgttgaccat ggtcattgct ctcaattgcc tcggcggtt tgctcccca 60

agccctgtgc ctccctctac agccctcaag gagctcattg aggagctggt caacatcacc 120

cagaaccaga agggcccgct ctgcaatggc agcatgggtg ggagcatcaa cctgacagct 180

ggcgtgtact gtgcagccct ggaatccctg atcaacgtgt caggetgcag tgccatcgag 240

aagaccaga ggatgctgaa cggattctgc ccgcacaagg tctcagctgg gcagttttcc 300

agcttgctgtg tccgagacac caaaatcgag gtggcccagt ttgtaaagga cctgctcgta 360

catttaaaga aactttttcg caatggacgg ttcaactga 399

<210> 14

<211> 34

<212> DNA

<213> ARTIFICIAL

<220>  
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 aagcttcacc atggcgctct tgttgacat ggtc 34

<210> 15  
 <211> 40  
 <212> DNA  
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 <400> 15  
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<210> 16  
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<220>  
 <223> Forward oligonucleotide primer for Fc gammal  
 <400> 16  
 ctcgaggagc ccagatcttg tga 23

<210> 17  
 <211> 35  
 <212> DNA  
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<220>  
 <223> Reverse oligonucleotide primer for Fc gamma 1  
 <400> 17  
 gctctagagc ctcatttacc cggagacagg gagag 35

<210> 18  
 <211> 8  
 <212> PRT  
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<220>  
 <223> EPITOPE BINDING SITE

<400> 18  
 Glu Ser Leu Ile Asn Val Ser Gly  
 1 5

<210> 19  
<211> 12  
<212> PRT  
<213> ARTIFICIAL

<220>  
<223> EPITOPE BINDING SITE

<400> 19

Tyr Cys Ala Ala Leu Glu Ser Leu Ile Asn Val Ser  
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<210> 20  
<211> 23  
<212> PRT  
<213> ARTIFICIAL

<220>  
<223> FRL1 228B/C-1

<400> 20

Asn Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly  
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys  
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<210> 21  
<211> 23  
<212> PRT  
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<220>  
<223> FRL1 TEMPLATE HT2

<400> 21

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly  
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Glu Arg Ala Thr Ile Asn Cys  
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<210> 22  
<211> 23  
<212> PRT  
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<220>

<223> FRL1 VARIANT B

<400> 22

Asp Ile Val Met Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly  
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Glu Arg Ala Thr Ile Asn Cys  
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<210> 23

<211> 23

<212> PRT

<213> ARTIFICIAL

<220>

<223> FRL1 VARIANT J

<400> 23

Asp Ile Val Leu Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
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Glu Arg Ala Thr Ile Asn Cys  
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<210> 24

<211> 23

<212> PRT

<213> ARTIFICIAL

<220>

<223> FRL1 VARIANT L

<400> 24

Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ser Val Ser Leu Gly  
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Glu Arg Ala Thr Ile Asn Cys  
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<210> 25

<211> 23

<212> PRT

<213> ARTIFICIAL

<220>

<223> FRL1 VARIANT HT-NEW #300

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Asp Ile Val Leu Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly  
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys  
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<210> 26

<211> 23

<212> PRT

<213> ARTIFICIAL

<220>

<223> FRL1 VARIANT HT2-DP27 #29

<400> 26

Asp Ile Val Leu Thr Gln Ser Pro Val Ser Leu Ala Val Ser Leu Gly  
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys  
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<210> 27

<211> 23

<212> PRT

<213> ARTIFICIAL

<220>

<223> FRL1 VARIANT HT2-DP27 #53

<400> 27

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Glu Arg Ala Thr Ile Asn Cys  
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<210> 28

<211> 23

<212> PRT

<213> ARTIFICIAL

<220>

<223> FRL1 VARIANT HT2-DP27 #66

<400> 28

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
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Glu Arg Ala Thr Ile Asn Cys  
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<210> 29  
<211> 15  
<212> PRT  
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<220>  
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<400> 29

Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr  
1 5 10 15

<210> 30  
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<220>  
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Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser Arg Thr Asp Phe Thr  
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Leu Thr Ile Asp Pro Val Glu Ala Asp Asp Ala Ala Ser Tyr Tyr Cys  
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<210> 31  
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<220>  
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<400> 31

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr  
1 5 10 15

Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys  
20 25 30

<210> 32



<211> 32  
<212> PRT  
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<220>  
<223> FRL3 VARIANT B

<400> 32

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr  
1 5 10 15

Leu Thr Ile Asp Pro Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys  
20 25 30

<210> 33  
<211> 32  
<212> PRT  
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<220>  
<223> FRL3 VARIANT J

<400> 33

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr  
1 5 10 15

Leu Thr Ile Asp Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys  
20 25 30

<210> 34  
<211> 32  
<212> PRT  
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<220>  
<223> FRL3 VARIANT L

<400> 34

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Arg Thr Asp Phe Thr  
1 5 10 15

Leu Thr Ile Asp Pro Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys  
20 25 30

<210> 35  
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<223> FRL3 VARIANT N

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Leu	Thr	Ile	Asp	Pro	Val	Gln	Ala	Glu	Asp	Val	Ala	Val	Tyr	Tyr	Cys
			20					25					30		

<210> 36

<211> 32

<212> PRT

<213> ARTIFICIAL

<220>

<223> FRL